

I CLAIM:

1. A wave and tide actuated energy pump which uses the depth of the medium and the length of the pump cylinder 7, mounted to, near, or imbedded in the seabed floor, to accommodate shifting wave and tide conditions. The deeper the medium and the longer the cylinder 7 the greater the accommodation.
2. A piston 8 whose weight is sufficient to provide the pressure necessary to pump the liquid in which it is contained.
3. A buoy 1 whose draft is determined by the depth of wave action below the surface. The buoy 1 displaces water down to the maximum practical depth of the wave action and the piston 8 is weighted according to this displacement.
4. I claim a piston 8 dependent on claims 1,2 and 3 without sealing rings or with one or more sealing rings 9 and 10 to provide a seal against the cylinder wall 7.
5. I claim a weighted piston 8 dependent on claims 1,2 and 3 with a check valve assembly, 19 and 24, to allow the ventilation and passage of entrapped air or gases.
6. I claim a buoy 1 dependent on claims 1,2 and 3 whose freeboard or surplus buoyancy is determined as needed to raise the buoy, as close as possible, to the same speed as the wave is traveling vertically.
7. I claim a buoy 1 dependent on claims 1,2 and 3 with a mooring eyelet or ring 3 used to stabilize the direction of travel of the buoy.
8. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 1 to create a field 40 of wave and tide actuated pumps for the benefit of delivering a greater volume of energy in the form of fluid or water and fluid or water pressure.
9. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40 to create a oxygen regeneration system by pumping oxygen enriched sea water from the surface to the bottom of the ocean floor.
10. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40 to create a reservoir 44 of stored

energy in the form of the fluid or water pumped.

11. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40 to create a reservoir 44 to create hydro-electric power 45 from said reservoir 44 or directly from the wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40.
12. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40 to power booster pumps 46 to increase hydraulic pressure.
13. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40 to create evaporation ponds or large bodies of water 5 for mineral and chemical extraction, refinement and toxic waste removal from the sea.
14. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40 to create salt water lakes, large bodies of water 48 and seas for the evaporation sea water for the purpose of forming moisture laden clouds.
15. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10 , using this wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40 to create a process where prevailing winds will blow these clouds to natural and man made barriers 50 causing rain to fall.
16. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40 to create new pasture and farmland 49 created by resultant the rainfall 50.
17. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10 , using this wave and tide actuated pump 37 or a field of wave and tide actuated pumps 40 to create a process which will moderate the earth's climate 51.
18. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 1 to desalinate water 8.

19. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 1 to create levied sea animal farming 10 and harvesting of sea food.
20. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 1 to claim land from the sea 6 by pumping water out of a levied area.
21. I claim a process dependent on claims 1,2 and 3 as shown on process flow sheet, figure 10, using this wave and tide actuated pump 1 to clean up oil spills 3 and other contaminants.